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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,470	03/25/2004	Steven M. Hansen	AD7006/USNA	8340
23906 7590 12/05/2008 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1122B 4417 LANCASTER PIKE WILMINGTON, DE 19805				
EXAMINER ZEMEL, IRINA SOFIA				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
12/05/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

### Office Action Summary

**Application No.**

10/809,470

**Applicant(s)**

HANSEN ET AL.

**Examiner**

Irina S. Zemel

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 30-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-8, 11-13, 30-31 are rejected under 35 U.S.C. 103(a) as obvious over US PGPub **20020187291** to Philippoz et al., (hereinafter "Philippoz '291")

The rejection stands as per reason of record set forth with respect to the rejection over WO 02/0837794 to E. I. DuPont De Nemours, which is a WO equivalent document to the presently cited Philippoz '291 reference.

Specifically, Philippoz '291 reference discloses compositions containing polymeric matrix and short aramid microfibers such as Kevlar. Among suitable polymeric matrix materials, polyesters, specifically thermoplastic polyethylene terephthalate homo- and co-polymers are expressly disclosed in [0023, 0026]. The aramid fibers, which amount if the disclosed composition fully correspond to the claimed amounts (see [0031-32, 0042]) can be commercially available microfibers such as Kevlar, or any aramid microfibers prepared in accordance with various methods disclosed [0034-37].

Philippoz '291 reference expressly discloses [0032] that the diameter of the fibers is less than 150 um, thus implying that fibers with any diameter lower than 150 um (including those of diameter of nanometer dimensions which, according to the applicants own admission on page 6 of the instant specification are well known and commercially available) are suitable for the invention, absent showing of unexpected

results that can be clearly attributed to the fiber dimension. The Philippoz reference further expressly states that the length of the fibers can be as low as 0.1 mm (or 100  $\mu$ m) and the surface area is preferably exceeds 6 m<sup>2</sup>/g, which again, implies that fibers with any BET higher than 6 are suitable for the invention absent showing of unexpected results. Fibers of high BET are well known in the art (see, for example, referenced 2,999,788 patent).

The reference further expressly teaches addition of fillers and tougheners, ([0043]), and expressly discloses applicability of the composition for production of molded articles, films, filaments etc. The reference does not expressly disclose the process by which the microfibers are prepared that corresponds to the claimed method. However, the claims are directed to the product and not the process (even though the product is claimed in the product-by-process format). In such claims, the patentability of the product claims depends solely on the product characteristics regardless of the process by which the product was obtained. So long as the claimed product and the product disclosed in the prior art exhibit same properties, the product is deemed unpatentable over the prior art. In the instant case, since the size and the composition of the microfibers in the reference is identical to the claimed microfibers, it is reasonable believed that the compositions disclosed in the Philippoz reference inherently exhibit the same properties as the claimed composition, thus meeting the claim limitations. The burden is shifted to the applicants to provide evidence to the contrary.

Claims 9-10 and 32 are rejected under 35 U.S.C. 103(a) as obvious over DuPont in combination with Vercesi .

The rejection stands as per reason of record (with respect to the rejection over equivalent DuPont document) and discussion of the Philippoz '291 above.

### ***Response to Arguments***

Applicant's arguments with respect to all pending claims claim have been considered but are moot in view of the new ground(s) of rejection.

The newly cited reference is available under 35 USC 102(a and e). While the declaration anti-dates the (a) date of the reference, the (e), or effective filing date of the Philippoz '291 reference has not been anti-dated by the declaration.

It is, however, noted that while the applicants discuss the previously cited reference for its available under the applicable portions of 35 USC 102 statute (which the examiner completely agrees with), the applicants do not discuss the actual results presented in the declaration. Not only it is not clear what "Kevlar" filler the laboratory notes refer to (their physical characteristics or method of obtaining the fibers", it is further noted that the only examples provided in the declaration appears to cover a very narrow range of the compositions, namely, having from 0.05 to 0.5 % of the fibers as compared to the much broader claimed range, thus not being commensurate with the scope of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1796

Irina S. Zemel  
Primary Examiner  
Art Unit 1796

ISZ